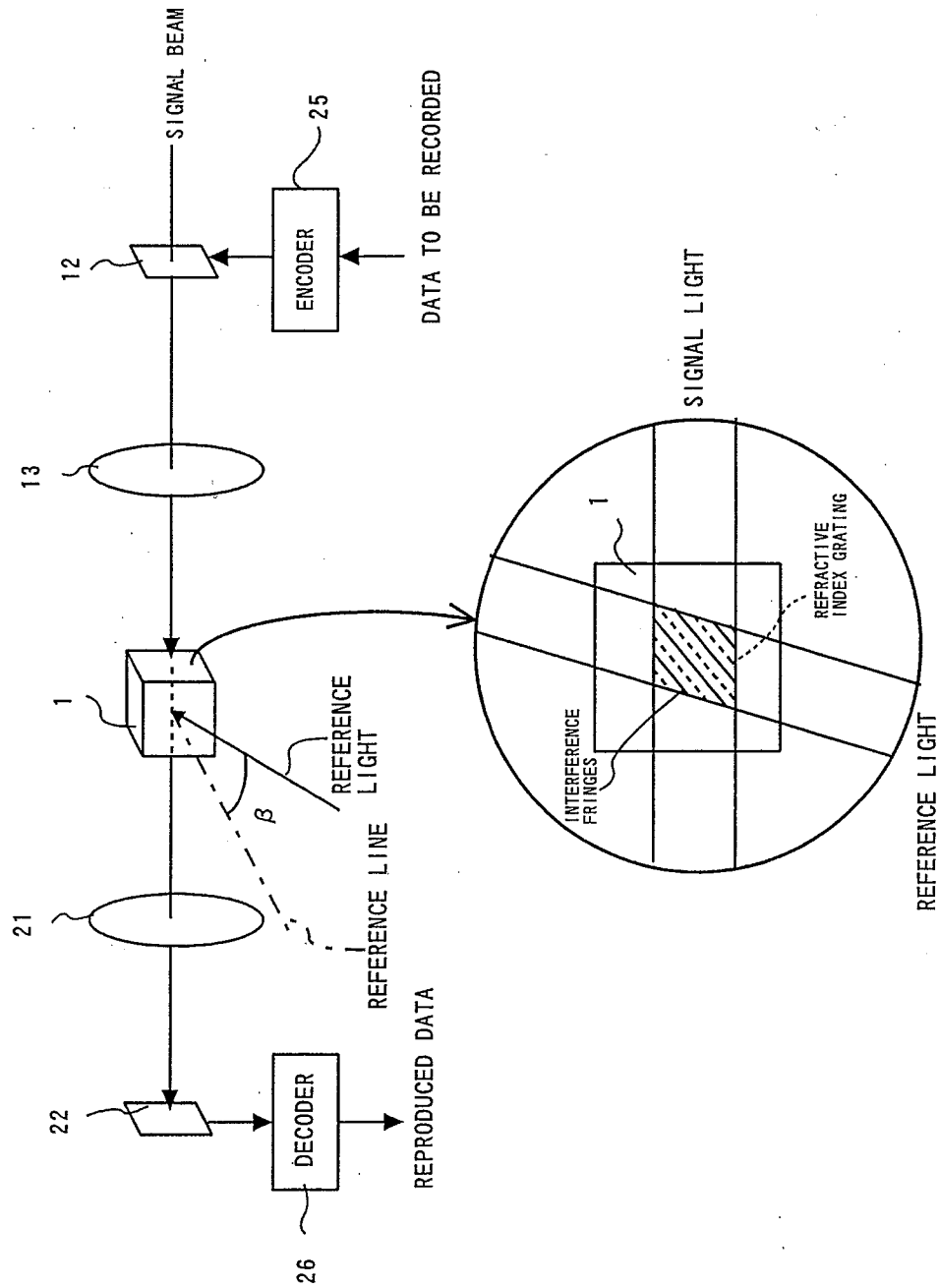


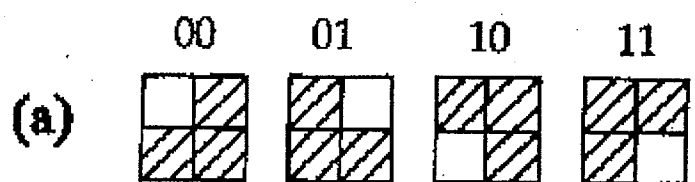
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FIG. 1 PRIOR ART

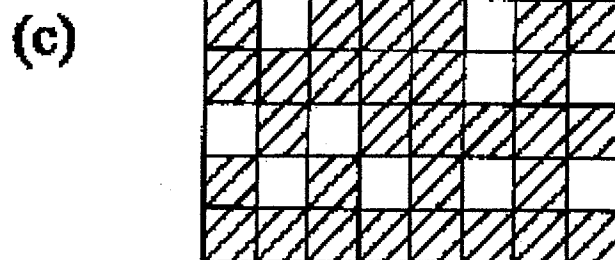


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FIG. 2 PRIOR ART

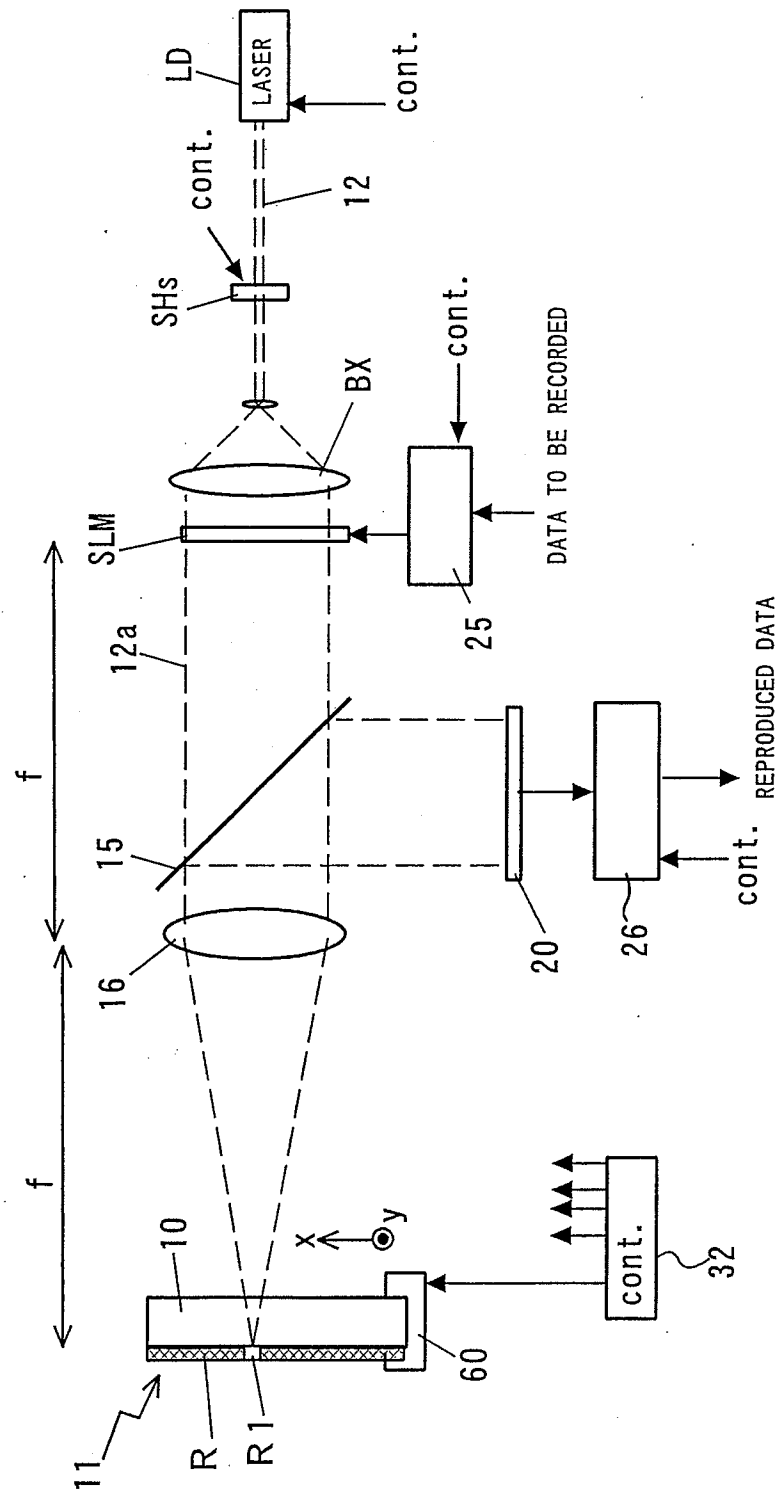


(b) 01001110110111001010010101010101



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FIG. 3



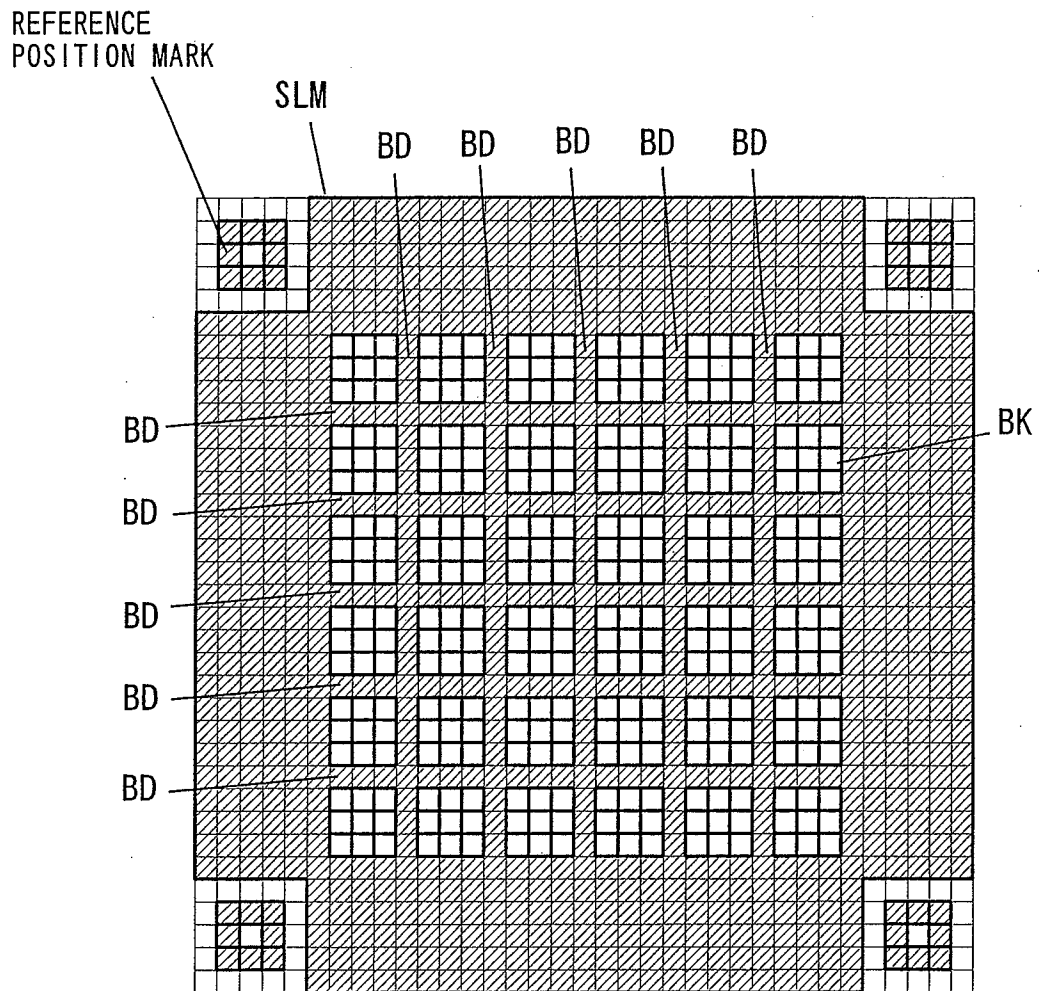
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FIG. 4

TWO-DIMENSIONAL MODULATION (6:9 MODULATION)			
INFORMATION DATA 6 BITS			MODULATED DATA OF 9 BITS (9 PIXELS)
000000	→	110001000	
000001	→	110000100	
000010	→	110000010	
000011	→	110000001	
100100	→	010001010	
100101	→	010001001	
100110	→	010000110	
100111	→	010000101	
	⋮		

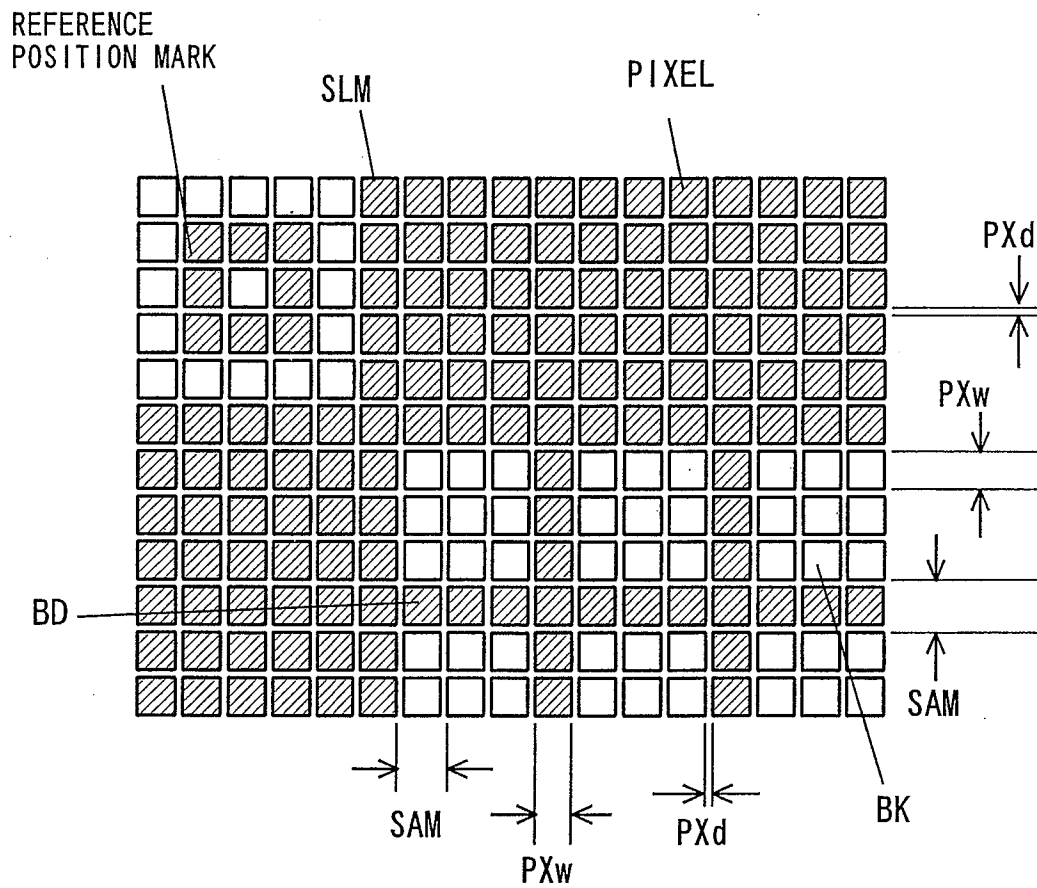
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FIG. 5



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FIG. 6



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FIG. 7

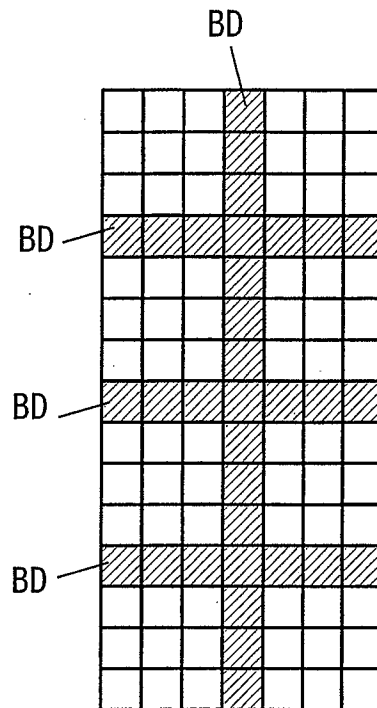
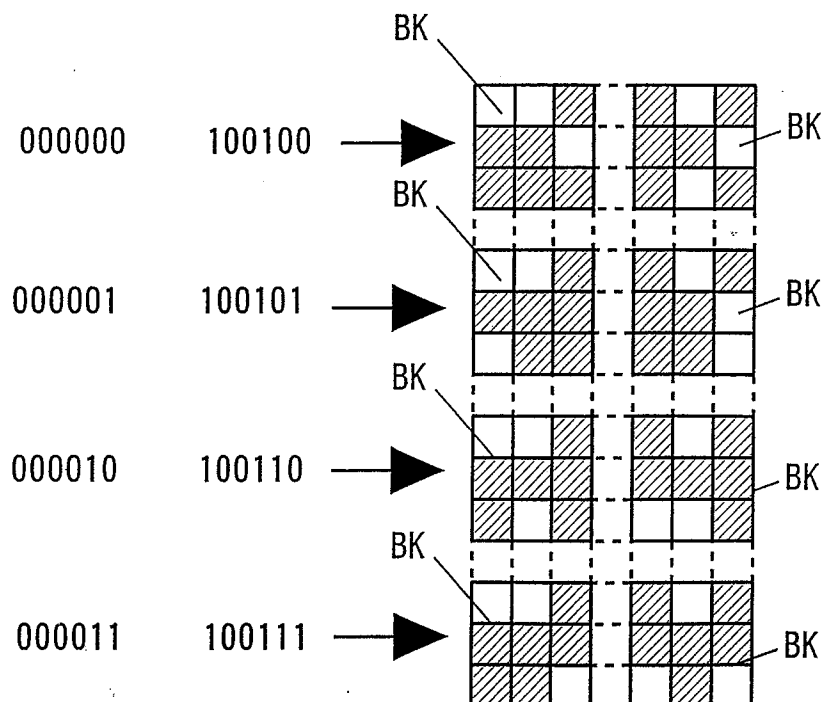
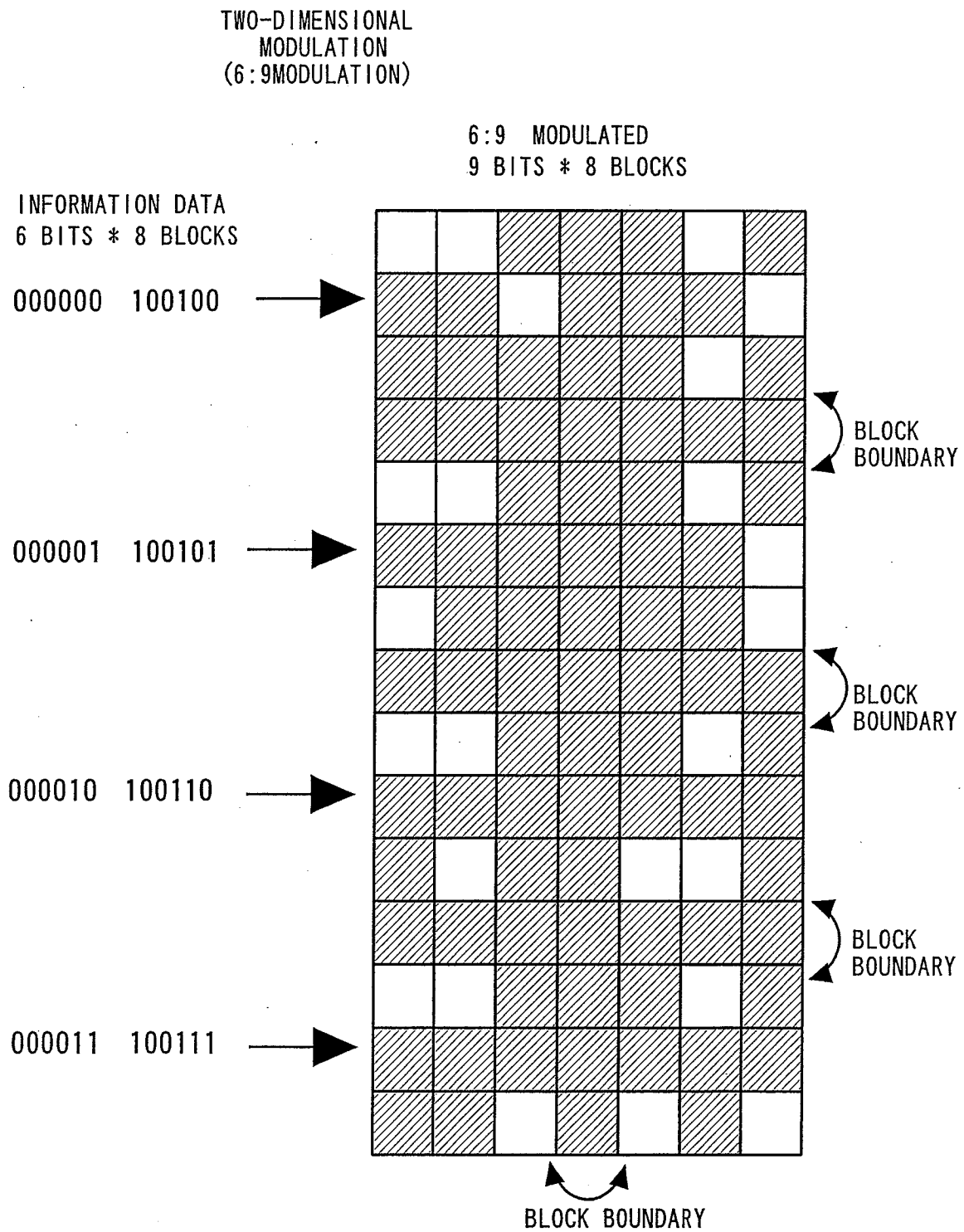


FIG. 8



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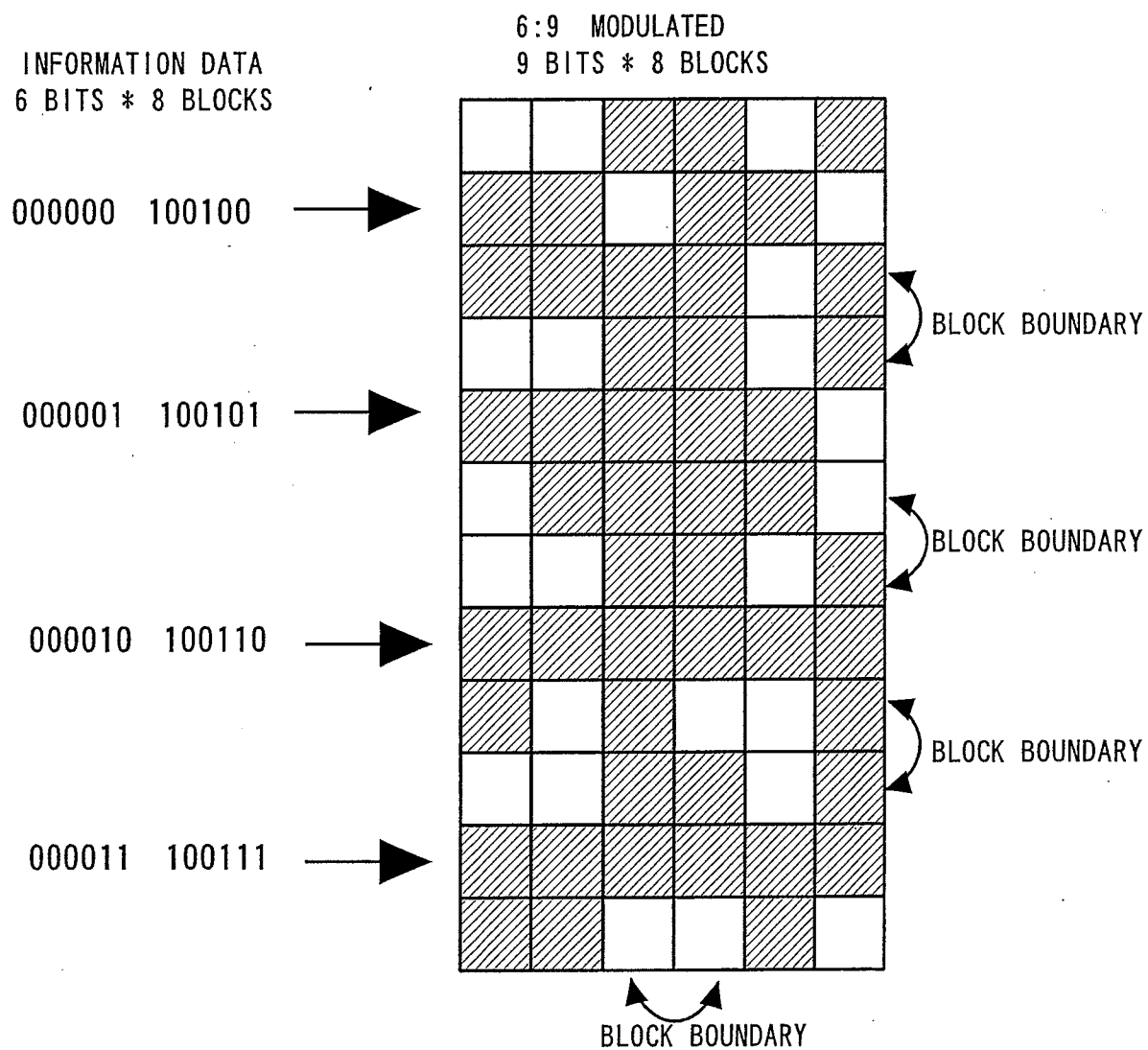
FIG. 9



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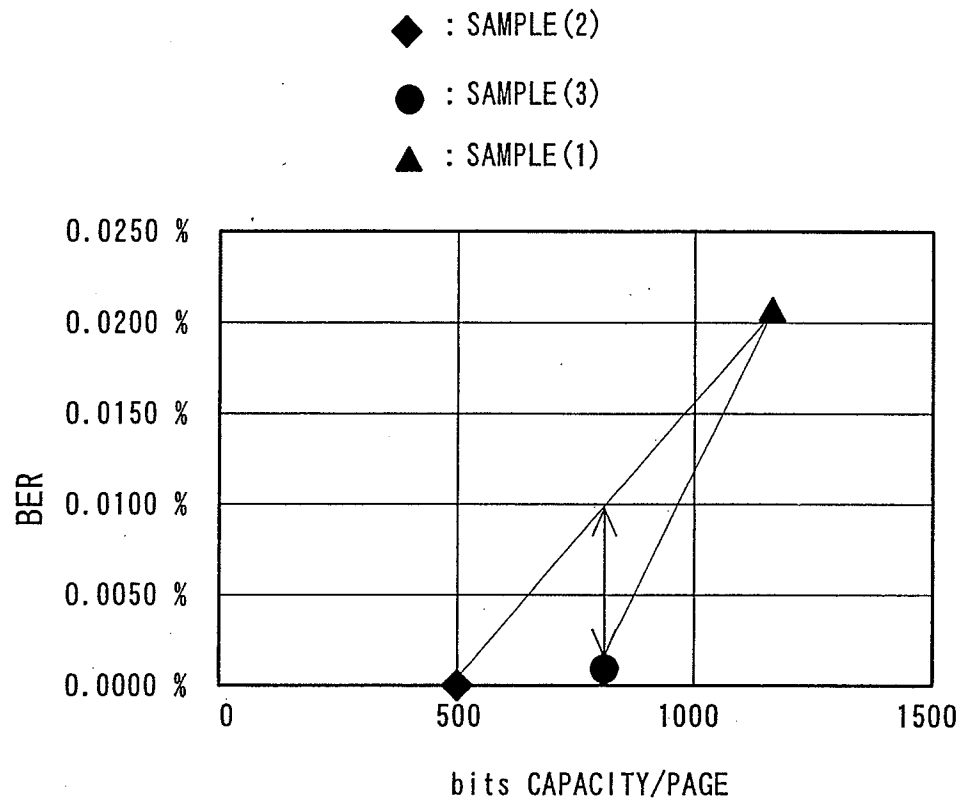
FIG. 10

TWO-DIMENSIONAL
MODULATION
(6:9MODULATION)



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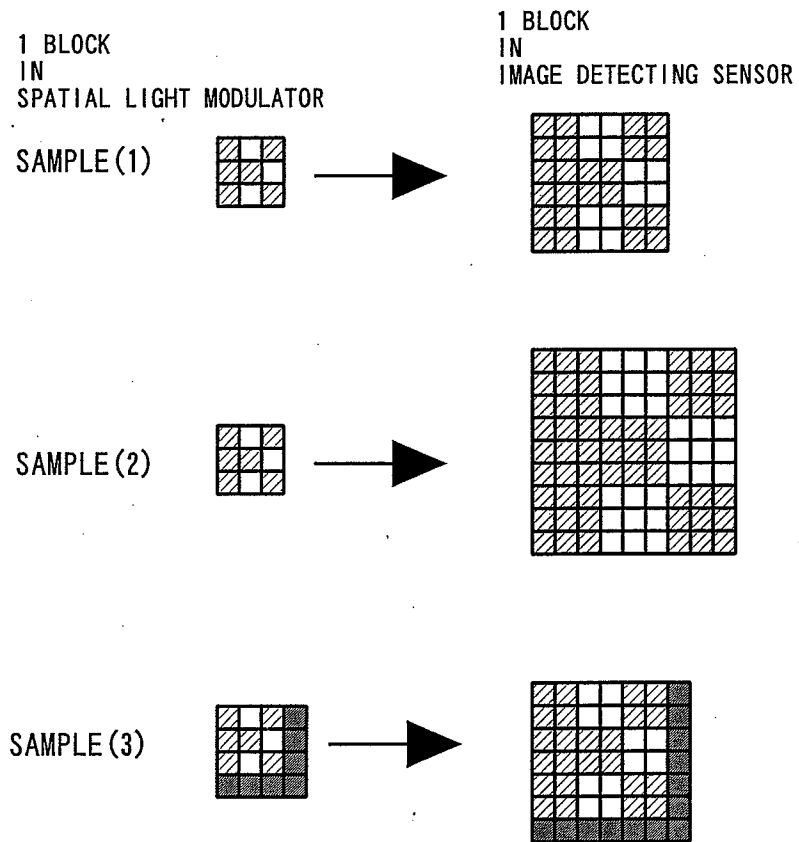
FIG. 1 1



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FIG. 1 2

OVERSAMPLING



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FIG. 1 3

LATTICE CONNECTION BASED ON ADDITION OF
DARK PIXELS ARRANGED IN J -SHAPE

TWO-DIMENSIONAL MODULATION (6:9 MODULATION)	
INFORMATION DATA OF 6 BITS	MODULATED DATA OF 9 BITS (16 PIXELS)
000000 →	
000001 →	
000010 →	
000011 →	
100100 →	
100101 →	
100110 →	
100111 →	
⋮	

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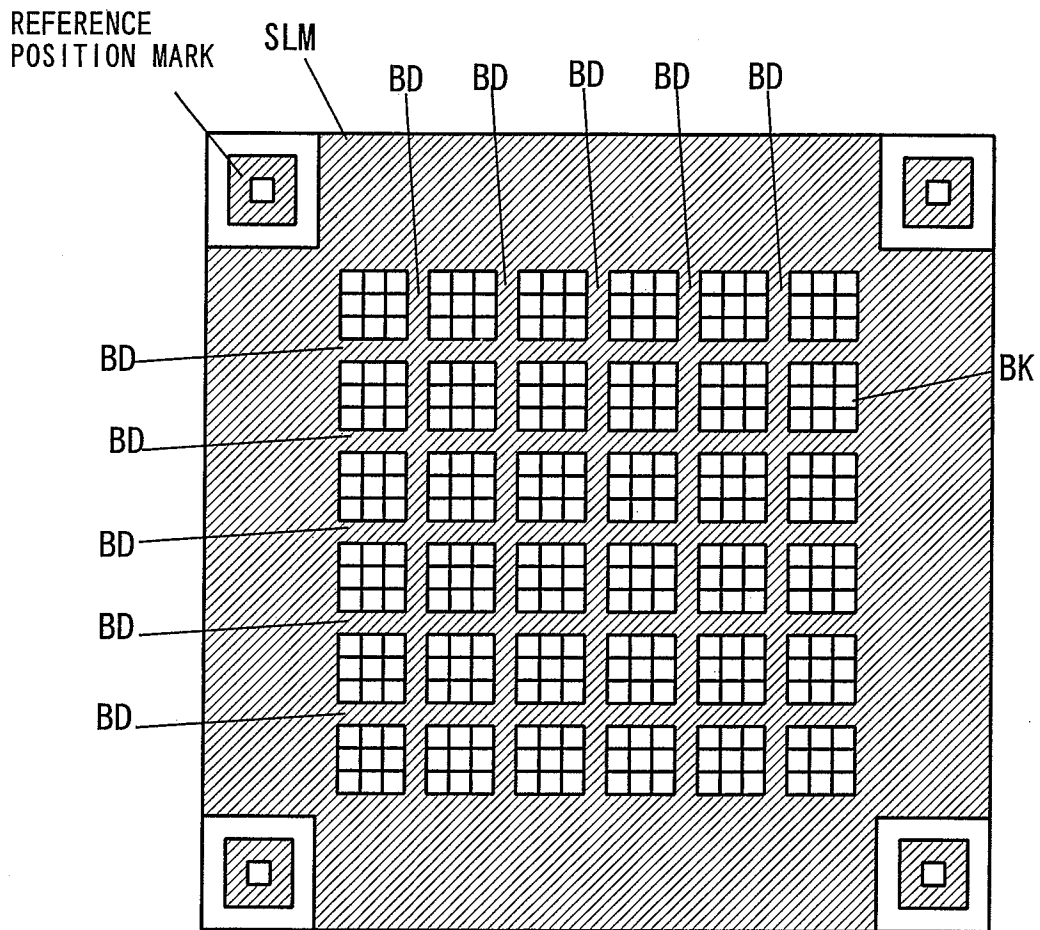
FIG. 1 4

LATTICE CONNECTION BASED ON ADDITION OF
DARK PIXELS ARRANGED IN T-SHAPE

TWO-DIMENSIONAL MODULATION (6:9 MODULATION)	
INFORMATION DATA OF 6 BITS	MODULATED DATA OF 9 BITS (16 PIXELS)
000000 →	
000001 →	
000010 →	
000011 →	
100100 →	
100101 →	
100110 →	
100111 →	
⋮	

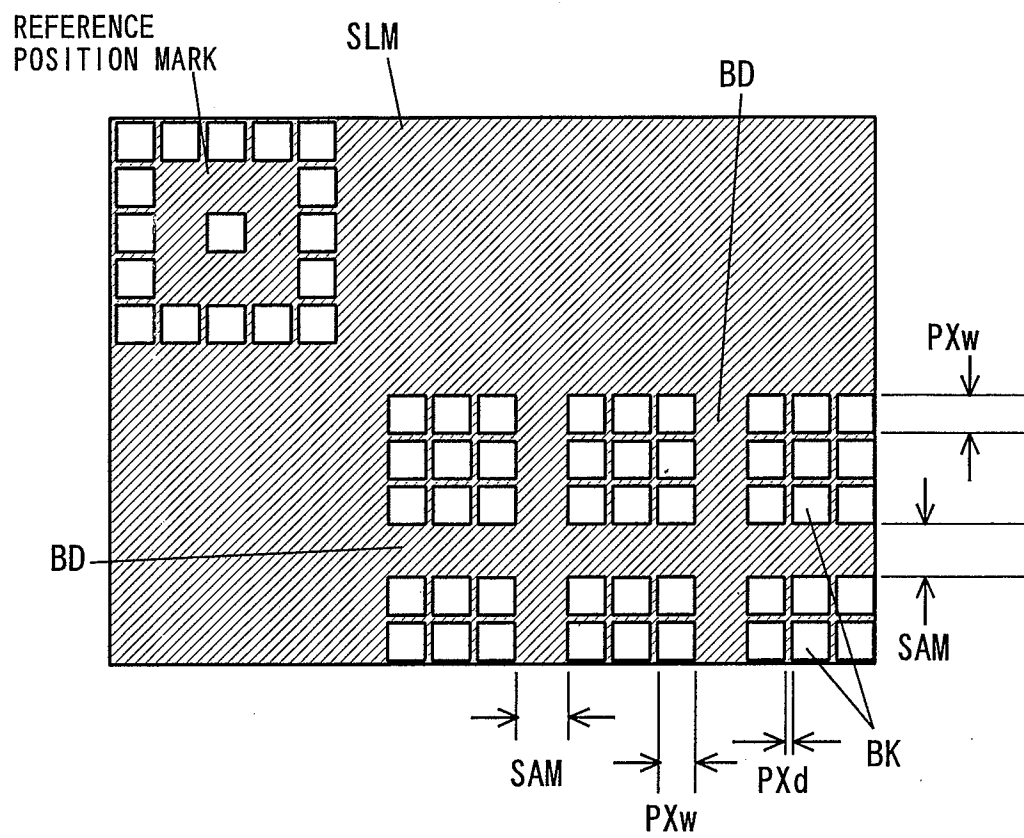
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FIG. 1 5



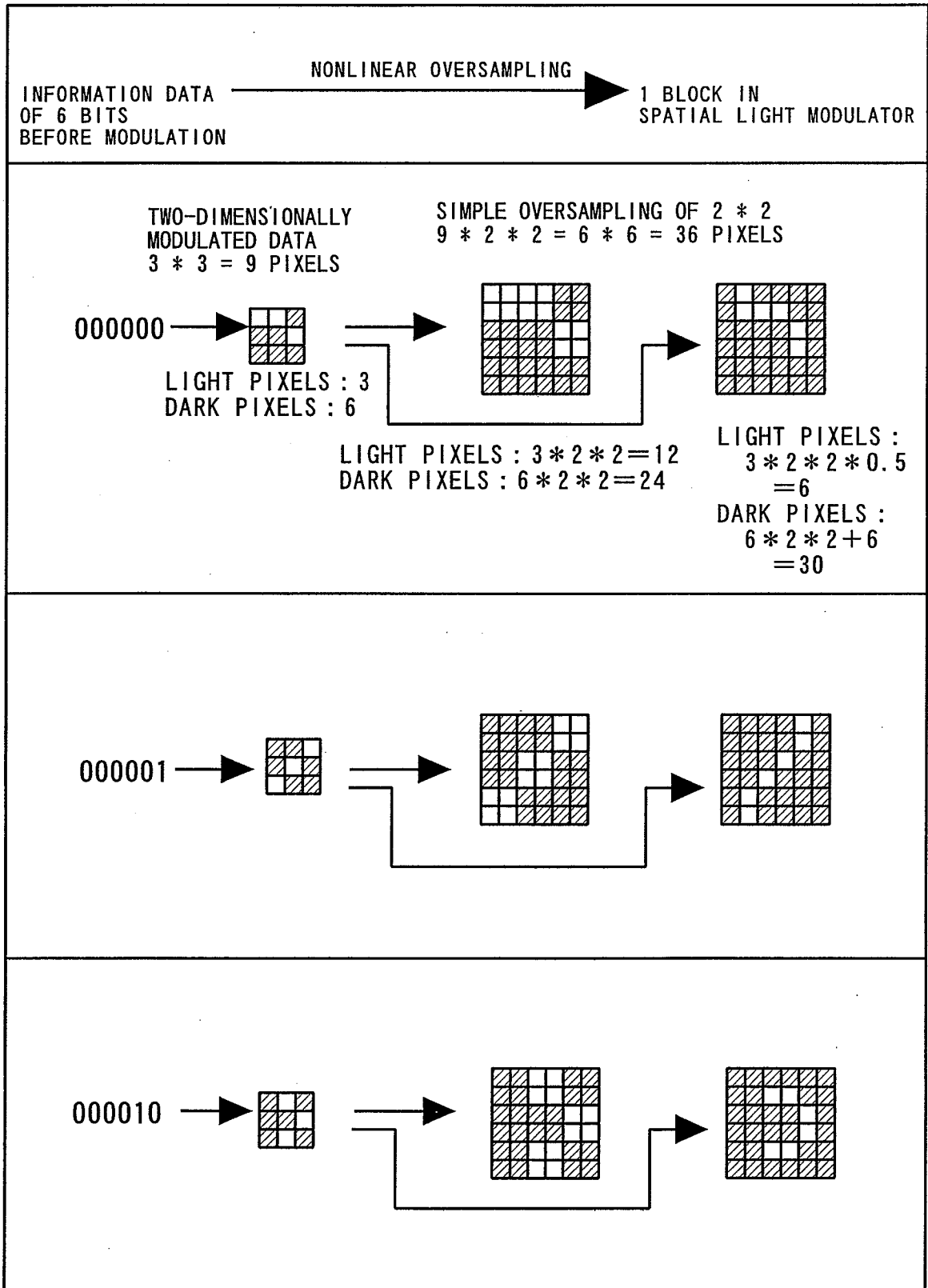
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FIG. 1 6



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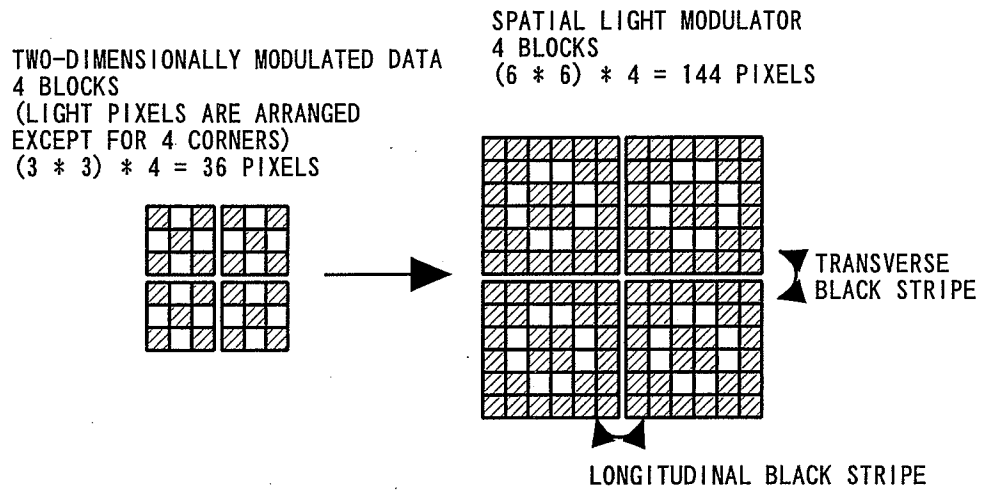
FIG. 1 7



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FIG. 1 8

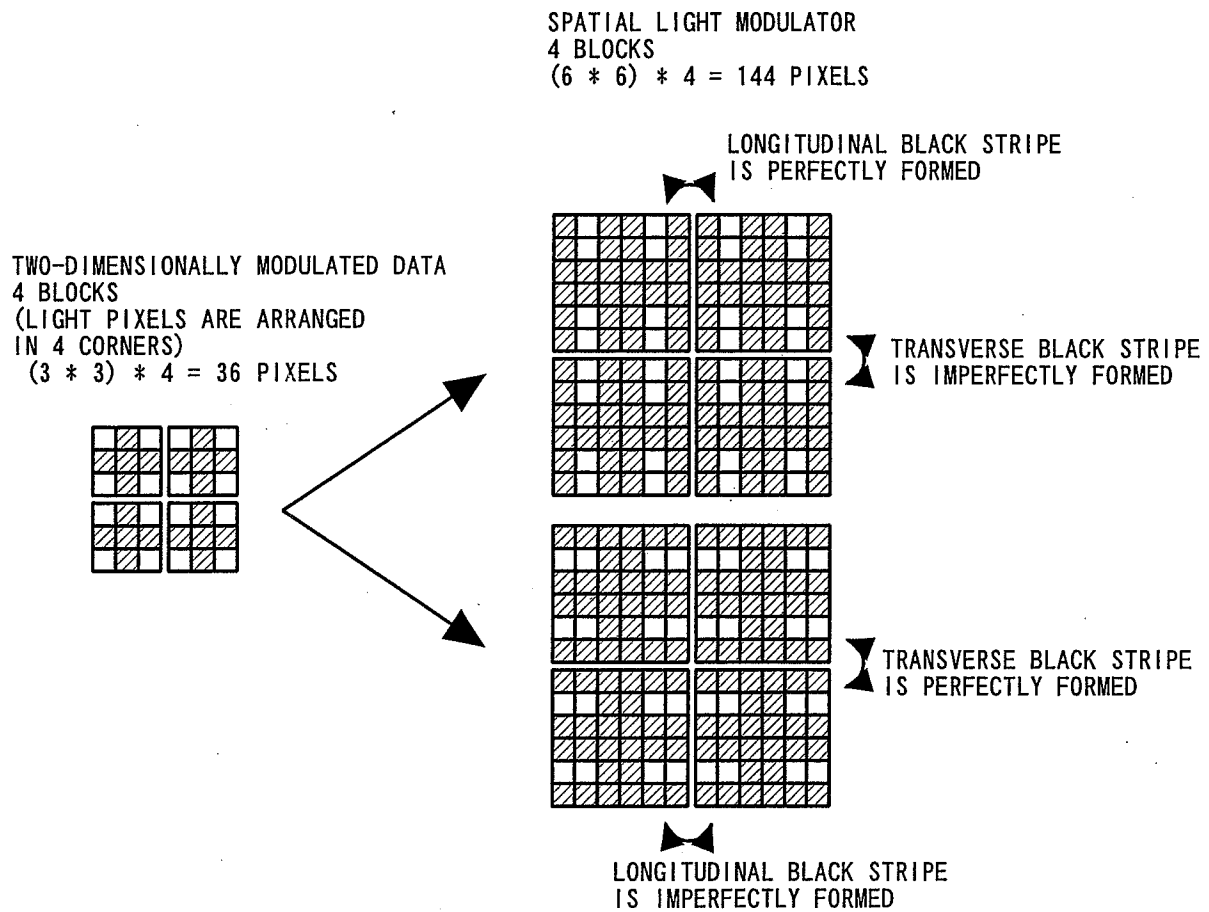
NONLINEAR OVERSAMPLING



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FIG. 1 9

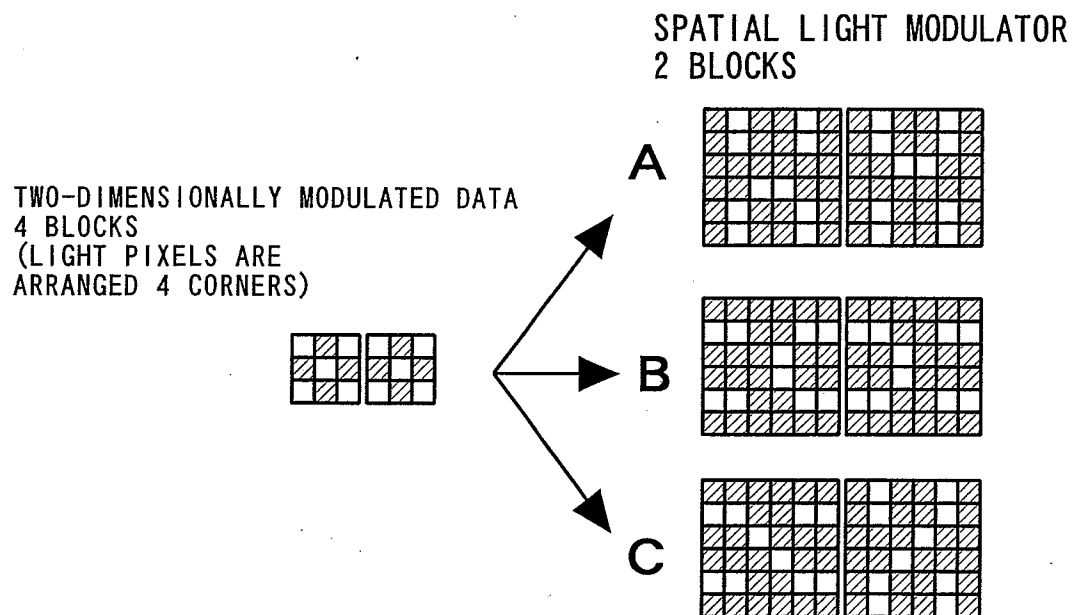
NONLINEAR OVERSAMPLING



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FIG. 2 0

NONLINEAR OVERSAMPLING



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FIG. 2 1

